AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A computer-readable medium having computer-executable instructions for a client on a computer network to access a database on the network via a server, comprising computer-executable instructions for:

receiving a description document from the server for describing a Web service, the description document having:

class definitions for a generic object class;

a plurality of object type classes derived from the generic object class, wherein each of the plurality of object type classes corresponds to a type of object in the database;

~~class definitions for~~ a Web service class that includes: a plurality of database operation methods defined within the Web service class, the plurality of database operation methods being defined for operating on instances of database objects, wherein each of the plurality of database operation methods is defined for the generic object class, and wherein the Web service class is ~~and~~ derived from ~~the service~~ a parent class; and

at least one flag statement identifying an object type; and

generating a database access request message for performing a database operation on a selected object type, including:

determining whether the selected object type is the object type identified by the flag statement;

if the selected object type is the object type identified by the flag statement, creating an object of the selected object type using the class definition for the selected object type in the received description document and generating a database operation method for the selected object type, the database operation method for the selected object type being based on one of the database operation methods defined for the generic object class; and

serializing the created object of the selected object type and including the serialized object in the request message.

2.   (Original) A computer-readable medium as in claim 1, wherein the description document is in the Web Services Description Language.

3.   (Previously Presented) A computer-readable medium as in claim 2, wherein the step of receiving includes the client converting the description document into a compiled software format.

4.   (Original) A computer-readable medium as in claim 3, wherein the compiled software format is for an intermediate language for a computer runtime environment.

5.   (Original) A computer-readable medium as in claim 1, wherein the database operation methods includes a search method.

6.   (Original) A computer-readable medium as in claim 5, wherein the search method returns an array as search result.

7.   (Original) A computer-readable medium as in claim 1, wherein the database operation methods includes at least one method with an array as an operand.

8.   (Original) A computer-readable medium as in claim 7, wherein the at least one method is a create method.

9.   (Currently Amended) A computer-readable medium having computer-executable instructions for a server of a runtime environment platform to provide a <u>Web</u> service of accessing a database, comprising<u> computer-executable instructions for</u>:

sending, in response to a query from a client, a description document to the client, the description document containing:

class definitions for a generic object class;

a plurality of object type classes derived from the generic object class, wherein each of the plurality of object type classes corresponds to a type of object in the database;

~~class definitions for a service~~ <u>Web service</u> class <u>that includes</u>~~:~~ a plurality of database operation methods defined <u>within the Web service class, the plurality of database operation methods being defined for operating on instances of database objects, wherein each of the plurality of database operation methods is defined </u>for the generic object class and <u>wherein the Web service class is </u>derived from ~~the service~~<u>a parent</u> class;

receiving a request message from the client for performing a requested database operation method, the request message including a serialized object for the requested database operation method;

deserializing the serialized object;

identifying an object type and parameters of the deserialized object; and

accessing the database to carry out the requested database operation method based on the object type and parameters of the deserialized object.

10.   (Original) A computer-readable medium as in claim 9, having further computer-executable instructions for performing the step of returning a result of carrying out the requested database operation method.

11.   (Original) A computer-readable medium as in claim 10, wherein the requested database operation method is a search method, and wherein the result of the requested database operation method includes an array.

12.   (Previously Presented) A computer-readable medium as in claim 9, wherein the requested database operation method has an array as an operand, and the request message

includes a plurality of serialized objects of different object types corresponding to elements of the array.

13.   (Original) A computer-readable medium as in claim 9, wherein the description document is in the Web Services Description Language (WSDL).

14.   (Original) A computer-readable medium as in claim 13, wherein the step of sending the description document includes converting a compiled code module into the description document.

15.   (Original) A computer-readable medium as in claim 14, wherein the compiled code module is in an intermediate language for a runtime environment platform.

16.   (Original) A computer-readable medium as in claim 9, wherein the step of accessing the database to carry out the requested database operation method includes communicating with a database server for the database.

17.   (Previously Presented) A computer-readable medium as in claim 16, where communicating with the database server is according to a directory access protocol.

18.   (Original) A computer-readable medium as in claim 17, wherein the database access protocol is the Lightweight Directory Access Protocol (LDAP).

19.   (Currently Amended) A Web service for accessing a database, comprising:

means for providing a description document containing:

class definitions for a generic object class;

a plurality of object type classes derived from the generic object class, wherein each of the plurality of object type classes corresponds to a type of object in the database;

~~class definitions for~~ a Web service class that includes:~~ and~~ a plurality of database operation methods defined within the Web service class, the plurality of database operation methods being defined for operating on instances of database objects, wherein each of the plurality of database operation methods is defined for the generic object class, and wherein the Web service class is ~~and~~ derived from ~~the service~~a parent class;

means for sending, in response to a query from a client, the description document to the client;

means for receiving a request message from the client for performing a requested database operation method, the request message including a serialized object for the requested database operation method;

means for deserializing the serialized object;

means for identifying an object type and parameters of the deserialized object; and

means for accessing the database to carry out the requested database operation method based on the object type and parameters of the deserialized object.

20.   (Previously Presented) A Web service as claim 19, further including means for returning a result of carrying out the requested database operation method to the client.

21.   (Original) A Web service as in claim 19, wherein the directory operation methods include a search method returning an array as a search result.

22.   (Previously Presented)   A Web service as in claim 19, wherein the database operation methods include a create method having an array as an operand.

23.   (Original) A Web service as in claim 19, wherein the description document is in the Web Services Description Language (WSDL).

24. (Previously Presented) A Web service as in clam 23, wherein the means for providing the description document includes a WSDL conversion module for converting a compiled code module into the description document.

25. (Previously Presented) A Web service as in claim 19, wherein the means for deserializing the object in the request message is a runtime environment.

26. (Original) A Web service as in claim 19, wherein the means for accessing the database communicates with a database server for the database to carry out the requested database operation method.

27. (Original) A Web service as in claim 26, wherein the means for accessing the database communicates with the database server using the Lightweight Directory Access Protocol (LDAP).

28. (Previously Presented) A Web service as recited in claim 1, wherein the plurality of database operations includes one or more batch operations.

29. (New) A method as recited in claim 1, wherein the database is a database directory for discovery of Web services.

30. (New) A method as recited in claim 1, wherein receiving a description document from the server comprises:

the client receiving a description document in an intermediate language for a runtime environment; and

a runtime environment of the client converting the description document from the intermediate language into WSDL.